

REMARKS

Reconsideration of the present application as amended is respectfully requested. Claims 1 and 11 have been amended. New claims 25-34 have been added. Claims 1-2, and 4-34 are currently pending. Interviews between Applicant's representative and Examiner Wimer were conducted on April 14, 2004 and April 29, 2004, in which proposed amendments to the claims were discussed. Applicant wishes to thank Examiner Wimer for the courtesies extended during the interviews. Claims 1 and 11 have been amended and new claims 25-34 have been added in view of these discussions.

Claims 1, 2, 4, 5, 7-11, 16/11, 17-19 and 24 stand rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,572,227 to Pal et al. ("Pal '227"). Independent claim 1 has been amended to include the feature of "wherein the first and second antennas are arranged on at least one planar portion of a common support element when the external antenna device is in an operational mode, said common support element comprising a flexible dielectric film contained in a flexible housing." Independent claim 11 has been amended to include the feature of "wherein the first and second antennas are arranged on at least one planar portion of a common support element when the external antenna device is in an operational mode, said common support element comprising a flexible dielectric film contained in a flexible housing." Support for the amendments to claims 1 and 11 may be found at at least page 6, line 22 to page 8, line 7 and Figures 3-5c of the specification as originally filed. Applicant respectfully submits that Pal '227 fails to teach or suggest at least this feature of independent claims 1 and 11.

Pal '227 describes a multiband antenna system including several antenna elements provided in the form of quadrifilar helices. In particular, Pal '227 describes that several antenna elements are provided on an insulator sheet, which is then rolled into a hollow cylindrical insulator forming quadrifiler helices of antenna elements spaced from each other on the surface of the hollow cylindrical insulator. As illustrated in Figure 5 of Pal '227, the antenna elements of the antenna system of Pal '227 are arranged in a helical configuration along the hollow cylindrical insulator when the multi-band antenna system is in operation. Applicant respectfully submits that Pal '227 contains no teaching or suggestion of first and second antennas arranged on at least one planar portion of a common support element when an external antenna is in an operation mode, as found in claims 1 and 11 as amended. Applicant respectfully submits that

independent claims 1 and 11 distinguish over Pal '227 and requests that the 35 U.S.C. 102(b) rejection of claim 1 and 11 be withdrawn.

Claims 2, 4, 5, 7-10, 16-19, and 24 are dependent upon and include the limitations of their respective independent claims 1 and 11. For at least the reasons as discussed with respect to independent claims 1 and 11, Applicant respectfully submits that claims 2, 4, 5, 7-10, 16-19, and 24 also distinguish over Pal '227 and requests that the 35 U.S.C. 102(b) rejection of claims 2, 4, 5, 7-10, 16-19, and 24 be withdrawn.

Claims 1, 2, 4, 5, 7-12, 16/11, 16/12, 17-19 and 24 stand rejected under 35 U.S.C. 103(a) as being unpatentable over UK Patent No. 2322011A to Pal. et al. ("Pal '011") in view of Pal '227. As previously discussed, independent claims 1 and 11 have each been amended to include the feature of "wherein the first and second antennas are arranged on at least one planar portion of a common support element when the external antenna device is in an operational mode, said common support element comprising a flexible dielectric film contained in a flexible housing." Applicant respectfully submits that Pal '011 in view of Pal '227 fails to teach or suggest at least this feature of independent claims 1 and 11.

Pal '011 describes a helical multi-element antenna fabricated by forming a printed circuit board into a truncated cylindrical support. Pal '011 further describes that the truncated cylindrical support includes a first set of spiral elements, equiangularly displaced about the cylindrical support and lying between respective pairs of a second set of elements that are also helical and angularly equi-spaced around the truncated cylinder support. Pal '011 further describes that the first set and the second set of elements provide an interlaced pair of quadrifilar helical antennae. Applicant respectfully submits that Pal '011 contains no teaching or suggestion of first and second antennas arranged on at least one planar portion of a common support element when an external antenna is in an operation mode, as found in claims 1 and 11 as amended. As previously discussed, Applicant respectfully submits that Pal '227 also fails to teach or suggest at least this feature of independent claims 1 and 11. For at least the foregoing reasons, Applicant respectfully submits that independent claims 1 and 11 distinguish over Pal '011 in view of Pal '227 and requests that the 35 U.S.C. 103(a) rejections of claims 1 and 11 be withdrawn.

Claims 2, 4, 5, 7-10, 16-19, and 24 are dependent upon and include the limitations of their respective independent claims 1 and 11. For at least the reasons as discussed with respect to independent claims 1 and 11, Applicant respectfully submits that claims 2, 4, 5, 7-10, 16-19, and 24 also distinguish over Pal '011 in view of Pal '227 and requests that the 35 U.S.C. 103(a) rejection of claims 2, 4, 5, 7-10, 16-19, and 24 be withdrawn.

Claim 6 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Pal '011 in view of Pal '227 as applied to claims 1, 4, and 5, and further in view of U.S. Patent No. 5,926,139 to Korisch ("Korisch"). Claim 6 is dependent upon independent claim 1. As discussed in regard to the 103(a) rejection of independent claims 1 and 11, Applicant submits that there is no teaching or suggestion by either Pal '011 or Pal '227 of the at least the feature of claims 1 and 11 of "wherein the first and second antennas are arranged on at least one planar portion of a common support element when the external antenna device is in an operational mode, said common support element comprising a flexible dielectric film contained in a flexible housing."

Korisch is referred to in the Office Action as showing that "an inverted-F antenna is a planar device formed on a substrate." The Office Action indicates that "it would have been obvious to the skilled artisan to employ such an antenna in the Pal et al. devices." Applicant respectfully disagrees that it would have been obvious at the time of the invention to employ the planar-F band of Korisch in the antennas of Pal '011 or Pal '227. Korisch illustrates a planar-F antenna for use in two frequency bands that includes radiating portions for the two bands joined by a connecting portion and spaced from a ground plane. In contrast, Pal '011 and Pal '227 describe helical multi-element antennas having cylindrical support structures. Applicant respectfully submits that one of ordinary skill in the art at the time of the invention would not have been motivated to seek out the planar-F antenna of Korisch and combine it with the helical multi-element antennas of Pal '011 and Pal '227. In addition, Applicant submits that, even if such a motivation is assumed to have existed, there is no teaching or suggestion that the planar-F antenna of Korisch can be integrated with the cylindrical support structures of Pal '011 and Pal '227. For at least the foregoing reasons, Applicant respectfully submits that claim 6 distinguishes over Pal '011 in view of Pal '227 and further in view of Korisch, and requests that the 35 U.S.C. 103(a) rejection of claim 6 be withdrawn.

Claims 20-23 have been allowed. Claims 13-15, 16/13 16/14, 16/15 stand objected to as being dependent upon a rejected base claim, but are indicated as allowable if rewritten in independent form including the limitations of the base claim. Applicant wishes to thank the Examiner for the indication of allowable subject matter.

New independent claim 25 includes the feature of “wherein the first antenna is arranged on a first substantially planar portion of the common support element, and the second antenna is arranged on a second substantially planar portion of the common support element, said common support element comprising a flexible dielectric film contained in a flexible housing.” Support for new claims 25-34 can be found at at least page 6, line 22 to page 8, line 7, Figures 3-5c, and claims 1-18 of the specification as originally filed. Applicant respectfully submits that the art of record fails to teach or suggest at least this feature of independent claim 25. As previously discussed, Pal ‘227 and Pal ‘011 describe antenna systems having antenna elements formed upon cylindrical support structures. Applicant respectfully submits that neither Pal ‘227 nor Pal ‘011 describe an external antenna device wherein a first antenna is arranged on a first substantially planar portion of a common support element, and a second antenna is arranged on a second substantially planar portion of the common support element. Applicant respectfully submits that Korisch also fails to teach or suggest at least this feature. Applicant respectfully submits that independent claim 25 distinguishes over the cited references.

Claims 26-34 are dependent upon and include the features of independent claim 25. For at least the reasons as discussed with respect to independent claim 25, Applicant respectfully submits that claims 26-34 also distinguish over the cited references.

In view of the above, each of the presently-pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

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Respectfully submitted,

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